

Illustrations of chemical change should be used only *when* it is needed as a part of a solution to a problem undertaken by the group. Experiments are made to help evolve principles and generalizations.

Examples of Careful Observation and Interpretation in Problem-solving.

Example A. Problem: SHOWING EARLY ROOT AND LEAF GROWTH IN PLANTS

1. It was easy to observe the leaf growth on tomato plants which had grown from seeds, then replanted in individual containers.
2. Grass seeds were sprinkled on a wet bath sponge, placed in a fish bowl containing water, and covered with a glass plate. The cover was removed when the tiny grass blades appeared.
3. A glass jar was lined with a wet paper towel and a small amount of water kept in the jar. Bean seeds were placed between the paper and the jar. It was then easy to observe both root and leaf growth.

